Index of Claims

| App | licati | on/C | ontrol | No. |
|-----|--------|------|--------|-----|
|     |        |      |        |     |

10/686,437

Examiner

**GRANTZ ET AL.** 

Art Unit

Applicant(s)/Patent under Reexamination

Thomas R. Hannon

3682

| √ | Rejected |
|---|----------|
| = | Allowed  |

| ı | (Through numeral)<br>Cancelled |
|---|--------------------------------|
| ÷ | Restricted                     |

| Z | Non-Elected  |
|---|--------------|
| ı | Interference |

| A | Appeal   |
|---|----------|
| 0 | Objected |

| Cla             | aim      |  |                 |   |              | Dat  | e              |  |                 |          |       | Cla  | im       |          |              |         | Dat     | е               |          |          | ]        | С            | laim       |              |                 |                 |          | Date     | <del></del> |          |           |          |
|-----------------|----------|--|-----------------|---|--------------|--|----------------|--|-----------------|----------|-------|--|----------|----------|--------------|---------|---------|-----------------|----------|----------|----------|--------------|------------|--------------|-----------------|-----------------|----------|----------|-------------|----------|-----------|----------|
|                 | <u>~</u> | ιū   |                 |   |              |  |                |  |                 |          |       |  | ē        |          |              |         |         |                 |          |          |          |              | <u></u>    |              |                 |                 |          |          |             |          |           |          |
| Final           | Original | 10/27/05   |                 |   |              |  |                |  |                 |          |       | Final  | Original |          |              |         |         |                 |          | ı        |          | Final        | Original   |              |                 |                 |          |          |             |          |           | - 1      |
| 证               | Ę        | 2  |                 |   |              | 1  | Ì              |  |                 |          |       | iĒ   | Ĭ,       |          |              |         |         |                 |          |          |          | 记            | l Ĕ        |              |                 |                 |          |          |             |          |           |          |
|                 |          | Ľ  | Ш               |   | _            | L  |                |  |                 |          |       |  |          |          |              |         |         | L               |          |          |          |              |            |              | Ĺ               |                 |          |          |             |          |           |          |
|                 | 1        | =  | Ш               |   | L            | <u> </u>   | <u> </u>       |  |                 |          |       |  | 51       | Ш        | $\perp$      |         |         |                 |          |          |          |              | 101        |              |                 |                 |          |          |             |          | $\perp$   |          |
|                 | 2        | = .  | Ш               |   |              |  |                |  | $oxed{oxed}$    |          |       |  | 52       | Ш        |              |         |         |                 | Ш        |          |          |              | 102        |              | L               |                 |          |          |             |          |           |          |
|                 | 3        | 三  | Ш               |   | L            |  | _              | $\perp$  |                 |          |       |  | 53       | Ш        | $\perp$      | $\perp$ |         | Ŀ               | $\perp$  | $\perp$  |          |              | 103        |              |                 |                 |          |          |             |          |           |          |
|                 | 4        | =  | Ш               |   | ╙            |  | _              |  |                 |          |       |  | 54       | $\sqcup$ | 4            | $\perp$ |         | ┖               | $\perp$  |          | _        |              | 104        |              | L               |                 |          |          |             |          | _         | _        |
|                 | 5        | =  | Ш               |   | L            | <u> </u>   | _              | L  | _               |          |       |  | 55       | $\sqcup$ | $\perp$      | _       | $\perp$ | <u> </u>        |          |          | _        |              | 105        | _            | <u> </u>        |                 |          |          |             |          | _         | _        |
|                 | 6        | =  | Н               |   | _            | ₩  | $\vdash$       | ┞  |                 |          |       |  | 56       | $\sqcup$ | _            | $\bot$  | $\bot$  |                 |          | _        | 4        | <u> </u>     | 106        | _            | _               | _               |          |          |             | _        | _         | _        |
|                 | 7        | =  |                 |   | ļ            | ┡  | -              | <b> </b>   | -               | _        |       |  | 57       | $\vdash$ | _            | -       | -       | <u> </u>        | _        |          | -        | ļ            | 107        |              | L               | Щ               |          |          |             |          | $\dashv$  | _        |
|                 | 8        | =  | Н               |   | ├-           | ├-   | -              | ├-   | -               |          |       |  | 58       | $\vdash$ | 4            | 4       | +       | <u> </u>        |          | - -      | -        |              | 108        |              | L               |                 |          |          |             |          | $\dashv$  | ,        |
|                 | 9        | =  | Н               |   | -            | ₩  | ├-             |  | H               |          |       |  | 59       |          | +            | +       | +       | -               | -        |          | -        |              | 109        | <u> </u>     | H               | Н               |          |          |             | _        | -         | _        |
|                 | 10       | =  | $\vdash$        | _ | -            | ┢  | ₩              | -  | -               |          |       |  | 60       | -        | -            | +       |         | ├-              | $\dashv$ |          | 4        | <u> </u>     | 110        | L            | H               | $\dashv$        | _        |          | _           |          | -         | 4        |
| $\vdash$        | 11       | =  | $\vdash$        |   | -            | $\vdash$   | -              | ├  |                 |          |       | <u> </u>   | 61       | $\vdash$ | -            | - -     | +-      | ├               | -        |          | 4        | <u> </u>     | 111        | <u> </u>     | <del>   </del>  |                 |          |          | Ш           | $\vdash$ | $\dashv$  | $\dashv$ |
| -               | 12<br>13 | =  | $\vdash$        |   | +            | $\vdash$   | +-             | ├  | $\vdash$        |          |       | $\vdash$   | 62<br>63 | $\vdash$ | +            | +       | +       | $\vdash$        | $\vdash$ | +        | 4        | <u> </u>     | 112        | <del> </del> |                 | $\vdash$        |          |          | $\vdash$    | $\vdash$ | $\dashv$  |          |
|                 | 14       | =  | $\vdash$        |   | +-           | $\vdash$   | $\vdash$       | $\vdash$   | $\vdash$        | $\vdash$ |       | $\vdash$   | 64       | $\vdash$ | -+           | +       | +       | $\vdash$        | +        | +        | -        | -            | 113<br>114 | <del> </del> | $\vdash$        | $\vdash \vdash$ | $\vdash$ |          | Н           |          | $\dashv$  |          |
| $\vdash$        | 15       | =  | Н               |   | $\vdash$     | $\vdash$   | $\vdash$       | Н  | $\vdash$        |          |       | <u> </u>   | 65       | $\vdash$ | +            | +       | +       | <del>  -</del>  | -        | $\dashv$ | -        | $\vdash$     | 114        | $\vdash$     | $\vdash$        | $\vdash\vdash$  | -        | -        | $\vdash$    | $\vdash$ | $\dashv$  | $\dashv$ |
|                 | 16       | =  | Н               |   | ┼            | +-   | ╁╾             | <del>                                     </del> | Н               | -        |       | $\vdash \vdash$                                  | 66       | $\vdash$ | +            | +       | +       | 1               | +        | +        | -        | $\vdash$     | 116        | -            | $\vdash$        | $\vdash$        |          | -        | $\vdash$    | $\dashv$ | +         | $\dashv$ |
| _               | 17       | =  | $\vdash$        |   | $\vdash$     | †-   | $\vdash$       | $\vdash$   | $\vdash$        | $\dashv$ |       | <del>                                     </del> | 67       | -        | -+           | +       | +       | $\vdash$        |          | +-       | 1        | $\vdash$     | 117        |              | $\vdash$        | $\vdash \vdash$ |          |          | $\vdash$    | $\vdash$ | $\dashv$  | $\dashv$ |
| <u> </u>        | 18       | =  | Н               |   | $\vdash$     | $\vdash$   | $\vdash$       | H  | $\vdash$        | $\dashv$ |       | -  | 68       | $\vdash$ | +            | +       | +       | -               |          | -        | -{:::::  | -            | 118        | ┝            | -               |                 |          |          | -           | $\dashv$ | $\dashv$  | $\dashv$ |
|                 | 19       | N  | Н               |   | $\vdash$     | -  | +              | -  | $\vdash$        |          |       |  | 69       | $\vdash$ | $\dashv$     | +       | +       |                 |          | +        | -        | ┢            | 119        | _            |                 | $\vdash$        |          |          |             | $\vdash$ | $\dashv$  | $\dashv$ |
|                 | 20       | N  | Н               |   | ┢            | $\vdash$   | $\vdash$       |  |                 | -        |       |  | 70       | $\vdash$ | $\dashv$     |         | ╫       |                 |          | +        | -        | $\vdash$     | 120        | ├            | -               |                 |          | _        | $\vdash$    | $\dashv$ | $\dashv$  | $\dashv$ |
|                 | 21       | N  | Н               |   | $\vdash$     |  |                | $\vdash$   |                 | $\dashv$ |       |  | 71       | H        | $\dashv$     | +       | _       |                 |          | +        | 1        | $\vdash$     | 121        | ┢            | $\vdash$        | $\dashv$        |          | $\vdash$ |             | $\dashv$ | $\dashv$  | $\dashv$ |
|                 | 22       | N  | Н               |   |              | <del>  -</del>                                   | +-             |  |                 | $\dashv$ |       |  | 72       | $\vdash$ |              | +       |         | $\vdash$        |          | ╁        | ┨        | <del> </del> | 122        | <del> </del> | $\vdash$        | $\dashv$        |          | _        | $\vdash$    | $\dashv$ | $\dashv$  | $\dashv$ |
|                 | 23       |  | Н               |   |              |  | Т              | $\vdash$   |                 | _        |       |  | 73       | $\vdash$ |              | 十       | 1-      | H               |          |          | 1        | <del> </del> | 123        | -            |                 | $\dashv$        |          | $\dashv$ |             | $\dashv$ | $\dashv$  |          |
| _               | 24       | <del>                                     </del> | Н               |   | T            | <u>†                                    </u>     | t              |  | П               | $\neg$   |       |  | 74       | $\vdash$ | 十            | +       | 1       |                 | $\dashv$ | +        | 1        | <u> </u>     | 124        |              |                 | $\dashv$        | $\neg$   | $\dashv$ | $\dashv$    |          | 十         | -        |
|                 | 25       |  | П               |   | Г            |  | Т              |  | П               |          |       |  | 75       | П        | $\top$       | +       | 1       |                 | $\neg$   | 1        | 1        | -            | 125        |              |                 | $\dashv$        |          | _        |             | $\neg$   | $\dashv$  | _        |
|                 | 26       |  |                 |   | Г            |  |                |  | П               |          |       |  | 76       | П        |              | _       | 1       | ļ .             | $\neg$   | $\top$   |          |              | 126        | _            |                 |                 |          | -        |             | _        | ヿ         | ┨        |
|                 | 27       |  |                 |   |              | Π  |                |  | П               |          |       |  | 77       |          |              |         | 1       |                 |          |          | 7        |              | 127        |              |                 | $\neg$          |          |          |             | $\neg$   | 寸         | $\neg$   |
|                 | 28       |  |                 |   |              |  |                |  |                 |          |       |  | 78       |          | $\top$       |         |         |                 |          |          | 1        |              | 128        |              |                 | $\neg$          |          |          | $\Box$      | T        | 寸         | $\neg$   |
|                 | 29       |  |                 |   |              |  |                |  |                 |          |       |  | 79       |          |              | T       |         |                 |          |          |          |              | 129        |              |                 |                 |          |          |             |          | T         |          |
|                 | 30       |  |                 |   |              |  |                |  |                 |          |       |  | 80       |          |              |         |         | П               |          |          | 7        |              | 130        |              |                 |                 |          |          |             |          | $\exists$ |          |
|                 | 31       |  |                 |   |              |  |                |  | $\Box$          |          |       |  | 81       |          |              | floor   |         |                 |          |          | ]        |              | 131        |              |                 |                 |          |          |             |          | $\Box$    |          |
|                 | 32       | L  |                 |   |              | $\Box$   | 匚              |  | Ш               |          |       |  | 82       | П        | $oxed{\bot}$ |         |         |                 |          |          |          |              | 132        |              |                 |                 |          |          |             |          | $\Box$    |          |
|                 | 33       | <u> </u>   | $\sqcup$        |   | _            | <u> </u>   | _              | Ш  | Ш               |          |       |  | 83       | Ш        | $\perp$      |         | _       |                 |          | $\perp$  | 1        |              | 133        |              | Ш               |                 | _]       |          |             |          |           |          |
|                 | 34       | _  | $\sqcup$        |   | _            | <u> </u>   | <u> </u>       | Ш  | Щ               | ᆜ        |       |  | 84       | Ш        | _            | 4       | 1       |                 | _        | _        | <b>.</b> |              | 134        |              | Ш               |                 |          | _        |             |          | $\dashv$  | ᆜ        |
| <b>  </b>       | 35       | <u> </u>   | $\sqcup$        | _ | <u> </u>     | <del> </del>                                     | <del> </del>   | Ш  | Щ               |          |       | <u> </u>   | 85       | $\sqcup$ | $\perp$      | 4       | _       | Ш               |          |          |          |              | 135        |              | Щ               | $\Box$          | _        | _        |             |          | _         | Ц        |
| $\vdash$        | 36       | <u> </u>   | ${oxed}$        |   | <del> </del> | <u> </u>   | <u> </u>       | Ш  | Щ               |          |       |  | 86       | $\sqcup$ | $\perp$      | $\perp$ | 1       | Ш               | _        | $\perp$  | 4        | L.           | 136        |              | Ш               |                 | _        | _        |             |          | $\dashv$  | $\Box$   |
| $\sqcup \sqcup$ | 37       | <u> </u>   | ${oxed}$        |   | <u> </u>     |  | <del>  _</del> |  |                 |          |       |  | 87       | $\dashv$ | $\perp$      | 4       | 4-      | Ш               | _        | $\bot$   | 4        |              | 137        |              | $\square$       | _               | _        | _        |             | _        | $\dashv$  | _        |
| -               | 38       | <u> </u>   | $\vdash \vdash$ |   | -            | <del> </del>                                     | <del> </del>   |  | $\sqcup$        | 4        |       |  | 88       | $\dashv$ | $\dashv$     | +       | +       | $\sqcup$        |          | 4        | 4        | <u> </u>     | 138        |              | Ш               | _               | _        |          |             | _        | $\dashv$  | _        |
|                 | 39       | $\vdash$   | $\vdash \vdash$ |   | <del> </del> | -  | ├—             |  |                 |          |       |  | 89       |          | -            | -       | +-      | $\vdash \vdash$ |          | +        | 4        | <u> </u>     | 139        |              |                 | _               |          | _        | _           | _        | $\dashv$  | _        |
|                 | 40       |  | $\vdash \vdash$ |   | <del> </del> | -  | ├              | $\vdash$   | $\vdash$        | $\dashv$ |       |  | 90       | -        | +            | +       | +       | $\vdash$        |          | +        | 4        |              | 140        |              | $\vdash$        |                 |          | $\dashv$ | -           | $\dashv$ | 4         | 4        |
| -               | 41       | $\vdash$   | $\vdash$        | _ | $\vdash$     | $\vdash$   | ├              | $\vdash$   | $\vdash \vdash$ | $\dashv$ |       |  | 91<br>92 | -        | +            | +       | +       | Н               | -        | +        | 4        |              | 141        |              | $\vdash \vdash$ |                 | -        | $\dashv$ | -           |          | +         |          |
|                 | 42       | <del> </del>                                     | $\vdash$        |   | $\vdash$     | $\vdash$   | $\vdash$       | $\vdash$   | $\vdash \vdash$ | $\dashv$ |       |  | 93       | -        | -            | +       | ╀       | $\vdash$        | -        | +        | <b>-</b> |              | 142        |              | Н               |                 |          | 4        | $\dashv$    |          | $\dashv$  | $\dashv$ |
|                 | 44       | -  | $\vdash \vdash$ | _ |              | -  | -              | $\vdash$   | $\vdash$        |          |       |  | 94       | -        | +            | +       | +       | H               |          | +        | -        |              | 143<br>144 |              | Н               | -               |          | $\dashv$ |             | -        | $\dashv$  | ᆛ        |
|                 | 44       | $\vdash$   | $\vdash$        | _ | $\vdash$     | $\vdash$   | $\vdash$       | $\vdash$   | $\vdash$        | $\dashv$ |       |  | 95       | $\dashv$ | $\dashv$     | +       | +       | $\vdash$        | +        | +        | -        |              |            | $\vdash$     | Н               |                 |          | $\dashv$ | _           |          | +         | $\dashv$ |
|                 | 46       | -  | $\vdash$        |   | <u> </u>     | $\vdash$   | $\vdash$       | $\vdash$   | $\vdash$        | ᅱ        |       | $\vdash$   | 96       | $\dashv$ | +            | +       | +       | $\vdash$        | +        | +        | 1        |              | 145<br>146 | -            | $\vdash$        | $\dashv$        |          | $\dashv$ |             | $\dashv$ | +         | $\dashv$ |
|                 | 47       | $\vdash$   | $\dashv$        |   | $\vdash$     | ┢  |                | $\vdash \vdash$                                  | $\vdash \vdash$ | $\dashv$ |       |  | 97       | $\dashv$ | +            | +       | +       |                 | $\dashv$ | +        | 1        |              | 147        | $\vdash$     | $\vdash$        | $\dashv$        |          | $\dashv$ |             | $\dashv$ | +         | $\dashv$ |
|                 | 48       | Η.   | $\vdash$        | _ | -            | $\vdash$   | Н              | $\vdash \vdash$                                  | $\vdash$        | $\dashv$ |       |  | 98       | +        | +            | +       | +       | H               | $\dashv$ | +-       | 1        |              | 148        |              | Н               |                 |          | -        | $\dashv$    | $\dashv$ | $\dashv$  | $\dashv$ |
|                 | 49       | H  | $\vdash$        | - | $\vdash$     | <del>                                     </del> | -              | $\vdash$   | $\vdash$        | -        |       |  | 99       | +        | $\dashv$     | +       | +       | H               | +        | +        | 1        |              | 149        | $\vdash$     | $\vdash$        | -               | -        | -        | $\dashv$    | $\dashv$ | $\dashv$  | $\dashv$ |
|                 | 50       |  |                 |   | $\vdash$     | $\vdash$   |                | $\vdash$   | $\vdash$        | $\dashv$ |       |  | 100      | $\vdash$ | +            | +       | +       | $\vdash$        | $\dashv$ | +        | 1        |              | 150        | -            | $\vdash$        | $\dashv$        | +        | $\dashv$ | $\dashv$    | -+       | $\dashv$  | $\dashv$ |
|                 |          | لبا  |                 |   |              |  |                |  |                 |          | ••••• |  |          |          |              | 1_      |         |                 |          |          | 1:::::   |              | 1 100      |              |                 |                 |          | _ 1      |             | 1        |           | - 1      |